AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Cancelled).

2. (Currently Amended) The molding method according to claim 5, wherein the compressing ~~compression molding~~ of the lens preform is conducted in vacuum.

3. (Withdrawn) Apparatus for molding a microlens array, whereby a microlens array is molded by heating and compressing a glass element, comprising

oppositely placed first and second cores each having a compression molding surfaces between which surfaces a microlens array is moldable by heating and compression;

a depression or projection part formed on the compression molding surface of at least one of the first and second cores for transferring and molding a plurality of convex or concave lens elements;

a middle plate having a hole at its center; and

the hole being adapted to have the glass element set therein, and at least one of the cores having a tip including the compression molding surface of said core, the tip being disposed so as to be able to ascend or descend in the hole;

whereby the apparatus is adapted to compression mold the glass element by means of said compression molding surfaces and the inner peripheral surface of the hole of the middle plate by moving said compression molding surfaces of both cores in a relatively closing direction.

4. (Withdrawn) The molding apparatus according to claim 3, further comprising means for maintaining a vacuum state during the compression molding of the glass element.

5. (Currently Amended) A method of molding a micro-lens array comprising:

obtaining a lens preform;

obtaining first and second molding cores, each including an end part ~~tip~~, and obtaining an intermediate restrictor ~~member~~;

wherein:

each molding core comprises a compression molding surface disposed on said end part ~~tip~~;

at least one of said molding surfaces comprises depressions or projections for transferring and molding a plurality of convex or concave lens elements into said preform;

said intermediate restrictor ~~member~~ comprises a predetermined outer radial dimension and an opening with a predetermined radius, said outer radial dimension being greater than an outermost radial dimension of both of the first and second cores;

said end part ~~tip~~ of said first molding core having a radially outer dimension that is smaller than the radius of the opening of said intermediate restrictor ~~member~~; and

said end part of said second molding core comprises a platform for positioning said intermediate restrictor ~~member is formed on said end tip of said second molding core~~;

said method further comprising:

positioning said intermediate restrictor ~~member~~ on said end part ~~tip~~ of said second molding core so that an ~~a center~~ axis of said second molding core is collinear with an axis of said opening ~~a center axis of said intermediate member~~;

positioning said lens preform and said end part ~~tip~~ of said first molding core within said opening of said intermediate restrictor ~~member~~ so that said end part ~~tip~~ of said first molding core opposes said end part ~~tip~~ of said second molding core and an ~~a center~~ axis of said first molding core is collinear with an axis of said opening ~~center axis of said second molding core~~; and

heating and compressing the lens preform between said molding surfaces of the first and second cores.

6. (Currently Amended) A method of molding a micro-lens array comprising:

obtaining a lens preform;

obtaining first and second molding cores, each including an end part ~~tip~~, and obtaining an intermediate restrictor ~~member~~;

wherein:

each molding core comprises a compression molding surface disposed on said end part ~~tip~~;

at least one of said molding surfaces comprises depressions or projections for transferring and molding a plurality of convex or concave lens elements into said preform;

said intermediate restrictor ~~member~~ comprises a predetermined outer radial dimension and an opening with a predetermined radius;

said end part ~~tip~~ of said first molding core having a radially outer dimension that is smaller than the radius of the opening of said intermediate restrictor ~~member~~; and

said end part ~~tip~~ of said second molding core having a radially outer dimension that is (1) larger than the radius of the opening of said intermediate restrictor ~~member~~ and (2) smaller than the outer radial dimension of said

intermediate restrictor ~~member~~ so that a platform for positioning said intermediate restrictor ~~member~~ is formed on said end part ~~tip~~ of said second molding core;

said method further comprising:

positioning said intermediate restrictor ~~member~~ on said end part ~~tip~~ of said second molding core so that an ~~a center~~ axis of said second molding core is collinear with an axis of said opening ~~a center axis of said intermediate member~~;

positioning said lens preform and said end part ~~tip~~ of said first molding core within said opening of said intermediate restrictor ~~member~~ so that said end part ~~tip~~ of said first molding core opposes said end part ~~tip~~ of said second molding core and an ~~a center~~ axis of said first molding core is collinear with an axis of said opening ~~center axis of said second molding core~~; and

heating and compressing the lens preform between said molding surfaces of the first and second cores.

7. (New) The method of molding according to claim 5, wherein said end part of said first molding core has a smaller outer radius than said outermost radial dimension of said second molding core.

8. (New) The method of molding according to claim 5, wherein said end part of said first molding core has a smaller outer radius than said outermost radial dimension of said first molding core.

9. (New) The method of molding according to claim 5, wherein said outermost radial dimension of said first molding core is the same as said outermost radial dimension of said second molding core.

10. (New) The method according to claim 5, wherein

a length of said end part of said first molding core extends in a direction perpendicular to said predetermined radius of said opening, said radially outer dimension of said end part of said first molding core being smaller than a radially outer dimension of a portion of said first molding core adjacent to said end part of said first molding core;

a thickness of said intermediate restrictor extends in a direction perpendicular to said predetermined radius of said opening; and

said length of said end part of said first molding core is greater than said thickness of said intermediate restrictor.

11. (New) The method according to claim 5, wherein at least a portion of said intermediate restrictor is between said first molding core and said second molding core.

12. (New) The method according to claim 5, wherein said intermediate restrictor on said end part of said second molding core is positioned to restrict a

flow of said lens preform during said heating and compressing of said lens preform so as to mold said lens preform to closely conform to each of said depressions or projections to thereby homogenize an optical performance of lens elements disposed in a central area of said lens preform and lens elements disposed in a peripheral area of said lens preform.

13. (New) The method of molding according to claim 6, wherein said end part of said first molding core has a smaller outer radius than an outermost radial dimension of said second molding core.

14. (New) The method of molding according to claim 6, wherein said end part of said first molding core has a smaller outer radius than an outermost radial dimension of said first molding core.

15. (New) The method of molding according to claim 6, wherein an outermost radial dimension of said first molding core is the same as an outermost radial dimension of said second molding core.

16. (New) The method according to claim 6, wherein

a length of said end part of said first molding core extends in a direction perpendicular to said predetermined radius of said opening, said radially outer

dimension of said end part of said first molding core being smaller than a radially outer dimension of a portion of said first molding core adjacent to said end part of said first molding core;

a thickness of said intermediate restrictor extends in a direction perpendicular to said predetermined radius of said opening; and

said length of said end part of said first molding core is greater than said thickness of said intermediate restrictor.

17. (New) The method according to claim 6, wherein at least a portion of said intermediate restrictor is between said first and said second molding cores.

18. (New) The method according to claim 6, wherein said intermediate restrictor on said end part of said second molding core is positioned to restrict a flow of said lens preform during said heating and compressing of said lens preform so as to mold said lens preform to closely conform to each of said depressions or projections to thereby homogenize an optical performance of lens elements disposed in a central area of said lens preform and lens elements disposed in a peripheral area of said lens preform.

19. (New) The method according to claim 5, wherein said intermediate restrictor on said end part of said second molding core is positioned to restrict a

flow of said lens preform during said heating and compressing of said lens preform so as to homogenize an optical performance of lens elements disposed in a central area of said lens preform and lens elements disposed in a peripheral area of said lens preform.

20. (New) The method according to claim 6, wherein said intermediate restrictor on said end part of said second molding core is positioned to restrict a flow of said lens preform during said heating and compressing of said lens preform so as to homogenize an optical performance of lens elements disposed in a central area of said lens preform and lens elements disposed in a peripheral area of said lens preform.